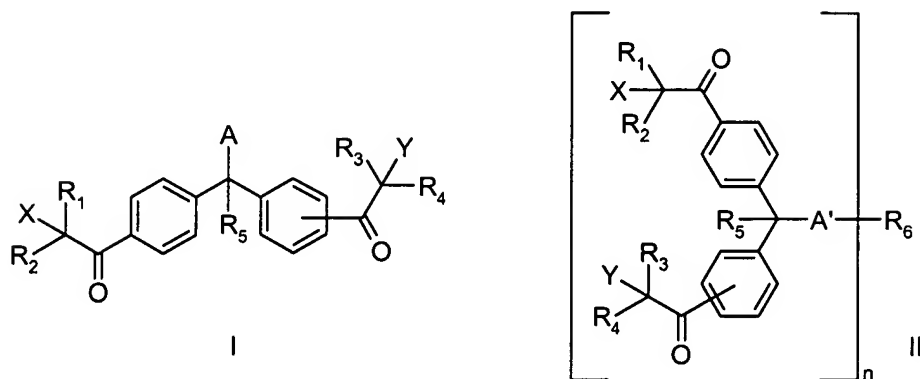


## In the Claims

### 1. (currently amended) A photoinitiator of formula I or II



wherein

$R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are each independently of the others  $C_1$ - $C_8$ alkyl;  $C_1$ - $C_4$ alkyl substituted by OH,  $C_1$ - $C_4$ alkoxy, -CN, -COO( $C_1$ - $C_8$ alkyl), ( $C_1$ - $C_4$ alkyl)-COO-, benzyl, phenyl or by -N( $R_{13}$ )( $R_{14}$ );

$C_3$ - $C_6$ alkenyl, benzyl, -CH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>-( $C_1$ - $C_4$ alkyl) or phenyl; or

$R_1$  and  $R_2$  together and / or  $R_3$  and  $R_4$  together are unbranched or branched  $C_2$ - $C_9$ alkylene or  $C_3$ - $C_6$ -oxa- or -aza-alkylene;

$R_5$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_3$ - $C_6$ alkenyl, benzyl, -CH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>-( $C_1$ - $C_4$ alkyl) or phenyl;

A is Cl, Br, -O- $R_7$ , -NR<sub>8</sub>R<sub>9</sub> or -S- $R_{16}$ ;

A' is -O-, -NH- or -NR<sub>6</sub>-;

X and Y are each independently of the other -O- $R_{10}$  or -N( $R_{11}$ )( $R_{12}$ );

n is an integer from 1 to 10 ~~[[, ]]preferably an integer from 1 to 4, especially 1, 2 or 3;~~

$R_6$  is an n-valent radical of linear or branched  $C_2$ - $C_{20}$ alkyl the carbon chain of which may be interrupted by cyclohexanediyl, phenylene, -CH(OH)-, -C(C<sub>2</sub>H<sub>5</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -C(CH<sub>3</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -C(CH<sub>2</sub>-CH<sub>2</sub>-OH)<sub>2</sub>-, -N(CH<sub>3</sub>)-, -N(C<sub>2</sub>H<sub>5</sub>)-, -N(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -CO-O-, -O-CO-, -O-CO-NH, NH-CO-O-, -P(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -P(O)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -O-P(O-CH<sub>2</sub>-CH<sub>2</sub>-OH)-O-, -O-P(O)(O-CH<sub>2</sub>-CH<sub>2</sub>-OH)-O-, -O-cyclohexanediyl-C(CH<sub>3</sub>)<sub>2</sub>-cyclohexanediyl-O-, -O-phenylene-C(CH<sub>3</sub>)<sub>2</sub>-phenylene-O-, -O-phenylene-CH<sub>2</sub>-phenylene-O-, -Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-, -O-Si(CH<sub>3</sub>)(O-CH<sub>3</sub>)-O-, -Si(CH<sub>3</sub>)( $R_{17}$ )-O-Si(CH<sub>3</sub>)( $R_{18}$ )-, 5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and/or by from one to nine oxygen atoms, or

R<sub>6</sub> is an n-valent radical of linear or branched -CO-NH-(C<sub>2</sub>-C<sub>16</sub>alkylene)-(NH-CO)<sub>n-1</sub>- or linear or branched -CO-NH-(C<sub>0</sub>-C<sub>9</sub>alkylene)-(NH-CO)<sub>n-1</sub>- which may be interrupted by one or two phenylene, methylphenylene, phenylene-O-phenylene, cyclohexanediyl, methylcyclohexanediyl, trimethylcyclohexanediyl, norbornanediyl, [1-3]diazetidone-2,4-dione-1,3-diyl, 3-(6-isocyanatohexyl)-biuret-1,5-diyl or 5-(6-isocyanatohexyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl radical(s), or

R<sub>6</sub> is an n-valent radical of linear or branched -CO-(C<sub>0</sub>-C<sub>12</sub>alkylene)-(CO)<sub>n-1</sub>- and the alkylene may be interrupted by oxygen, phenylene, cyclohexanediyl or by norbornanediyl; , or

R<sub>6</sub> is an n-valent radical of linear or branched -C<sub>2</sub>-C<sub>50</sub>alkylene the carbon chain of which is interrupted by one to 15 oxygen, and may be substituted by OH or NH<sub>2</sub>;

R<sub>7</sub> is hydrogen, -Si(C<sub>1</sub>-C<sub>6</sub>alkyl)<sub>3</sub>, C<sub>1</sub>-C<sub>12</sub>alkyl, R<sub>21</sub>, C<sub>2</sub>-C<sub>18</sub>acyl, -CO-NH-C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>2</sub>-C<sub>20</sub>hydroxyalkyl, C<sub>2</sub>-C<sub>20</sub>methoxyalkyl, 3-(C<sub>1</sub>-C<sub>18</sub>alkoxy)-2-hydroxy-propyl, 3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]-propyl, 2,3-dihydroxy-propyl or linear or branched C<sub>2</sub>-C<sub>21</sub>hydroxyalkyl or (C<sub>1</sub>-C<sub>4</sub>alkoxy)-C<sub>2</sub>-C<sub>21</sub>alkyl the carbon chain of which is interrupted by from one to nine oxygen atoms;

R<sub>8</sub> and R<sub>9</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl,; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

when R<sub>9</sub> = H or methyl, R<sub>8</sub> is also C<sub>2</sub>-C<sub>50</sub>alkyl substituted by one or more of the groups methyl, ethyl, OH, NH<sub>2</sub>, and is interrupted by one or more oxygen, -NH-, cyclohexanediyl, norbornanediyl or phenylene, or

R<sub>8</sub> and R<sub>9</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

R<sub>10</sub> is hydrogen, -Si(C<sub>1</sub>-C<sub>6</sub>alkyl)<sub>3</sub>, C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>alkenyl or benzyl,

R<sub>11</sub> and R<sub>12</sub> are each independently of the other C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

R<sub>11</sub> and R<sub>12</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

R<sub>13</sub> and R<sub>14</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

R<sub>13</sub> and R<sub>14</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

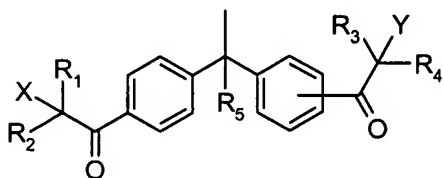
R<sub>15</sub> is hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, allyl, benzyl, C<sub>1</sub>-C<sub>4</sub>hydroxyalkyl, -CH<sub>2</sub>CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>4</sub>alkyl) or -CH<sub>2</sub>CH<sub>2</sub>CN;

R<sub>16</sub> is C<sub>1</sub>-C<sub>18</sub>alkyl, hydroxyethyl, 2,3-dihydroxypropyl, cyclohexyl, benzyl, phenyl, C<sub>1</sub>-C<sub>12</sub>alkylphenyl, -CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>18</sub>alkyl), -CH<sub>2</sub>CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>18</sub>alkyl) or -CH(CH<sub>3</sub>)-COO(C<sub>1</sub>-C<sub>18</sub>alkyl);

R<sub>17</sub> and R<sub>18</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and form chains;

R<sub>19</sub> and R<sub>20</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and extend chains and, when R<sub>19</sub> and R<sub>20</sub> are linked into a ring, -(R<sub>19</sub>)-(R<sub>20</sub>)- is the bridge -O- ;

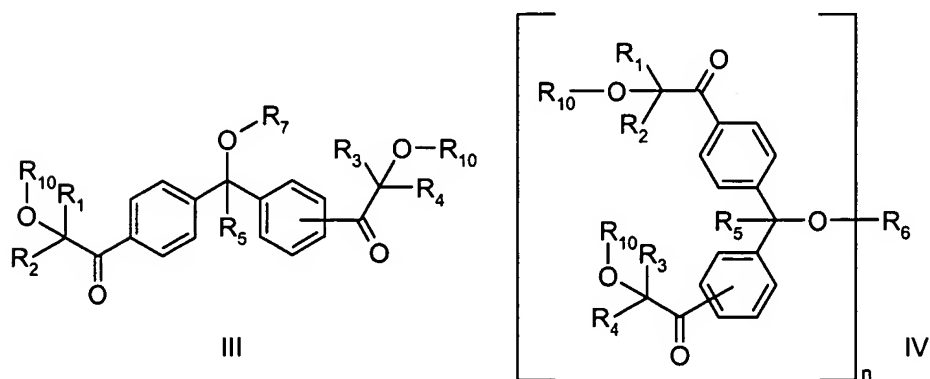
R<sub>21</sub> is, independently of formula I, a radical



; and

p is an integer from 2 to 12~~[[, ]]~~preferably 3, 5 or 6, it being possible for the carbon chain of the alkylene to be interrupted by from one to three oxygen atoms.

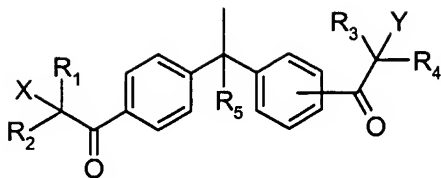
**2. (currently amended)** A photoinitiator according to claim 1 of formula III or IV



wherein

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are each independently of the others C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>alkenyl, benzyl, -CH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>-(C<sub>1</sub>-C<sub>4</sub>alkyl) or phenyl, or

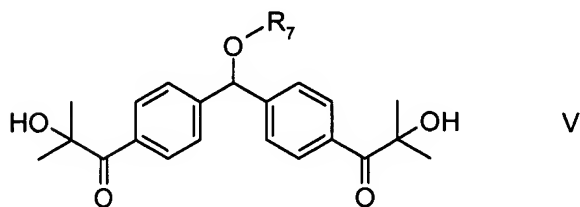
- $R_1$  and  $R_2$  together and / or  $R_3$  and  $R_4$  together are unbranched or branched  $C_2$ - $C_9$ alkylene;
- $R_5$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_3$ - $C_6$ alkenyl, benzyl,  $-CH_2-C_6H_4-(C_1-C_4$ alkyl) or phenyl;
- $n$  is an integer from 1 to 10~~[[, ]]~~preferably an integer from 1 to 4, especially 1, 2 or 3; and
- $R_6$  is an  $n$ -valent radical of linear or branched  $C_2$ - $C_{20}$ alkyl the carbon chain of which may be interrupted by cyclohexanediyl, phenylene,  $-CH(OH)-$ ,  $-C(C_2H_5)(CH_2-CH_2-OH)-$ ,  $-C(CH_3)(CH_2-CH_2-OH)-$ ,  $-C(CH_2-CH_2-OH)_2-$ ,  $-N(CH_3)-$ ,  $-N(C_2H_5)-$ ,  $-N(CH_2-CH_2-OH)-$ ,  $-CO-O-$ ,  $-O-CO-$ ,  $-P(CH_2-CH_2-OH)-$ ,  $-P(O)(CH_2-CH_2-OH)-$ ,  $-O-P(O-CH_2-CH_2-OH)-O-$ ,  $-O-P(O)(O-CH_2-CH_2-OH)-O-$ ,  $-O$ -cyclohexanediyl- $C(CH_3)_2$ -cyclohexanediyl- $O-$ ,  $-O$ -phenylene- $C(CH_3)_2$ -phenylene- $O-$ ,  $-O$ -phenylene- $CH_2$ -phenylene- $O-$ ,  $-Si(CH_3)_2-$ ,  $-O-Si(CH_3)_2-O-$ ,  $-O-Si(CH_3)(O-CH_3)-O-$ ,  $-Si(CH_3)(R_{17})-O-Si(CH_3)(R_{18})-$ , 5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and/or by from one to nine oxygen atoms, or
- $R_6$  is an  $n$ -valent radical of linear or branched  $-CO-NH-(C_2-C_9$ alkylene)- $(NH-CO)_{n-1}-$  or linear or branched  $-CO-NH-(C_0-C_9$ alkylene)- $(NH-CO)_{n-1}-$  which may be interrupted by one or two phenylene, methylphenylene, phenylene- $O$ -phenylene, cyclohexanediyl, methylcyclohexanediyl, trimethylcyclohexanediyl, norbornanediyl, [1-3]diazetidene-2,4-dione-1,3-diyl, 5-(6-isocyanatohexyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl or 3-(6-isocyanatohexyl)-biuret-1,5-diyl radical(s), or
- $R_6$  is an  $n$ -valent radical of linear or branched  $-CO-(C_0-C_{12}$ alkylene)- $(CO)_{n-1}-$  and the alkylene may be interrupted by oxygen, phenylene, cyclohexanediyl or by norbornanediyl;
- $R_7$  is hydrogen,  $-Si(C_1-C_6$ alkyl) $_3$ ,  $C_1$ - $C_{12}$ alkyl,  $R_{21}$ ,  $C_2$ - $C_{18}$ acyl,  $-CO-NH-C_1-C_{12}$ alkyl,  $C_2$ - $C_{20}$ hydroxyalkyl,  $C_2$ - $C_{20}$ methoxyalkyl, 3-( $C_1$ - $C_{18}$ alkoxy)-2-hydroxy-propyl, 3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]-propyl, 2,3-dihydroxypropyl or linear or branched  $C_2$ - $C_{21}$ hydroxyalkyl or ( $C_1$ - $C_4$ alkoxy)- $C_2$ - $C_{21}$ alkyl the carbon chain of which is interrupted by from one to nine oxygen atoms;
- $R_{10}$  is hydrogen,  $-Si(C_1-C_6$ alkyl)( $CH_3$ ) $_2$ ,  $C_1$ - $C_8$ alkyl,  $C_3$ - $C_6$ alkenyl or benzyl;
- $R_{17}$  and  $R_{18}$  are each independently of the other a monovalent radical methyl,  $-O-Si(CH_3)_3$ ,  $-O-Si(CH_3)_2-O-Si(CH_3)_3$ ,  $-O-Si(CH_3)[-(CH_2)_p-OH]-O-Si(CH_3)$  or a bivalent radical  $-O-Si(CH_3)_2-$ ,  $-O-Si(CH_3)[-(CH_2)_p-OH]-$ ,  $-O-Si(CH_3)(R_{19})-$ ,  $-O-Si(CH_3)(R_{20})-$  and form chains;
- $R_{19}$  and  $R_{20}$  are each independently of the other a monovalent radical methyl,  $-O-Si(CH_3)_3$ ,  $-O-Si(CH_3)_2-O-Si(CH_3)_3$ ,  $-O-Si(CH_3)[-(CH_2)_p-OH]-O-Si(CH_3)$  or a bivalent radical  $-O-Si(CH_3)_2-$ ,  $-O-Si(CH_3)[-(CH_2)_p-OH]-$ ,  $-O-Si(CH_3)(R_{19})-$ ,  $-O-Si(CH_3)(R_{20})-$  and extend chains and, when  $R_{19}$  and  $R_{20}$  are linked into a ring,  $-(R_{19})-(R_{20})-$  is the bridge  $-O-$ ;
- $R_{21}$  is, independently of formula III, a radical



; and

p is an integer from 2 to 12, preferably 3, 5 or 6, it being possible for the carbon chain of the alkylene to be interrupted by from one to three oxygen atoms.

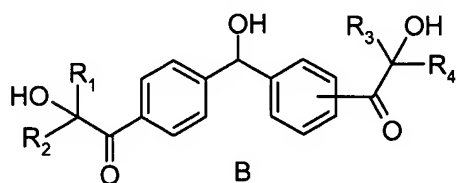
**3. (original)** A photoinitiator according to claim 1 of formula V



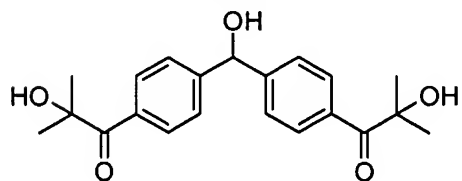
wherein

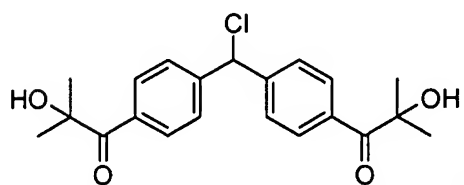
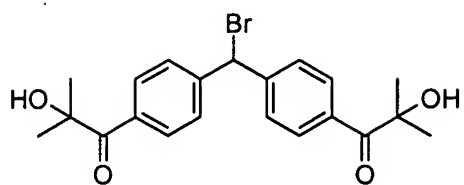
R<sub>7</sub> is hydrogen, -Si(CH<sub>3</sub>)<sub>3</sub>, C<sub>1</sub>-C<sub>8</sub>alkyl, bis[4-(2-hydroxy-2-methyl-propionyl)-phenyl]-methyl, C<sub>2</sub>-C<sub>18</sub>acyl, -CO-NH-C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>2</sub>-C<sub>20</sub>hydroxyalkyl, C<sub>2</sub>-C<sub>20</sub>methoxyalkyl or C<sub>2</sub>-C<sub>20</sub>hydroxyalkyl the carbon chain of which is interrupted by from one to nine oxygen atoms.

**4. (currently amended)** A photoinitiator according to claim 1 of the formula B

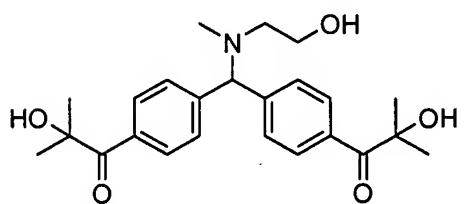


**5. (currently amended)** A photoinitiator according to claim 1 of formula

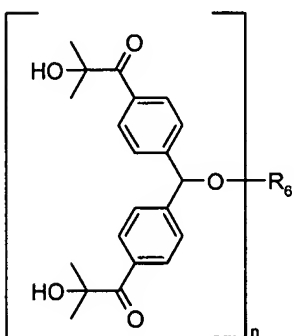




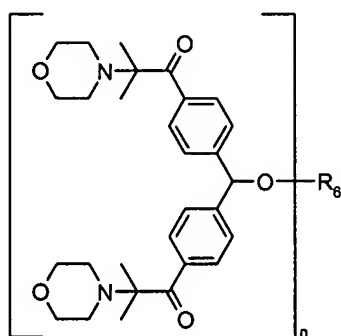
or



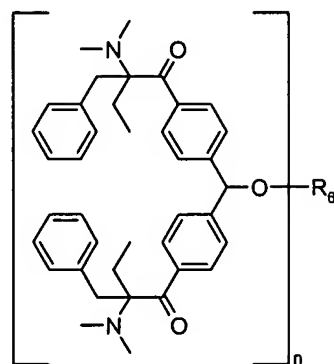
6. (currently amended) A photoinitiator according to claim 1 of formula VI, VII or VIII



VI



VII



VIII

wherein

n is an integer from 1 to 4, preferably an integer from 1 to 3, especially 2, and

R<sub>6</sub> is an n-valent radical of linear or branched C<sub>2</sub>-C<sub>16</sub>alkyl the carbon chain of which may be interrupted by cyclohexanediyl, phenylene, -CH(OH)-, -C(CH<sub>2</sub>-CH<sub>2</sub>-OH)<sub>2</sub>-, -C(CH<sub>3</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -C(C<sub>2</sub>H<sub>5</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -N(CH<sub>3</sub>)-, -N(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -CO-O-,

-O-CO-, -Si(CH<sub>3</sub>)<sub>2</sub>-, -Si(CH<sub>3</sub>)(R<sub>17</sub>)-O-Si(CH<sub>3</sub>)(R<sub>18</sub>)-, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-, -O-Si(CH<sub>3</sub>)(O-CH<sub>3</sub>)-O-, 5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and / or by from one to six oxygen atoms, or

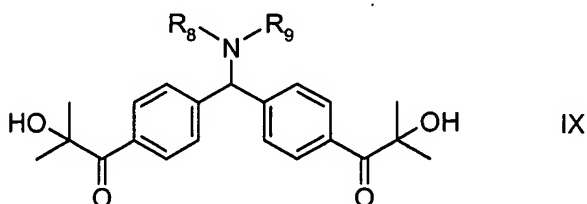
R<sub>6</sub> is an n-valent radical of linear or branched -CO-NH-(C<sub>2</sub>-C<sub>16</sub>alkylene)-(NH-CO)<sub>n-1</sub>- or linear or branched -CO-NH-(C<sub>0</sub>-C<sub>9</sub>alkylene)-(NH-CO)<sub>n-1</sub>- which may be interrupted by one or two phenylene, methylphenylene, phenylene-O-phenylene, cyclohexanediyl, methylcyclohexanediyl, trimethylcyclohexanediyl, norbornanediyl, [1-3]diazetidone-2,4-dione-1,3-diyl, 5-(6-isocyanatohexyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl or 3-(6-isocyanatohexyl)-biuret-1,5-diyl radical(s),

R<sub>17</sub> and R<sub>18</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and form chains,

R<sub>19</sub> and R<sub>20</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and extend chains and, when R<sub>19</sub> and R<sub>20</sub> are linked into a ring, -(R<sub>19</sub>)-(R<sub>20</sub>)- is the bridge -O-, and

p is an integer from 2 to 12 ~~[[, ]]~~ preferably 3, 5 or 6, it being possible for the carbon chain of the alkylene to be interrupted by from one to three oxygen atoms.

**7. (currently amended)** A photoinitiator according to claim 1 of formula IX



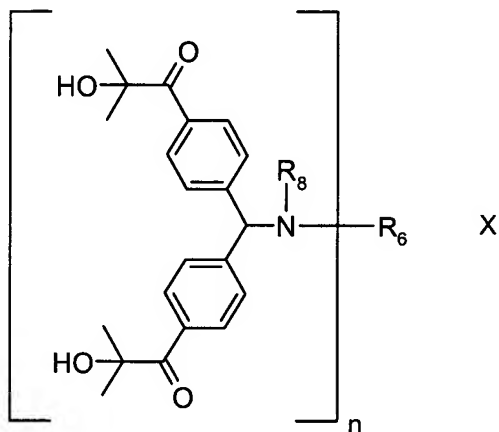
wherein

R<sub>8</sub> and R<sub>9</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl,; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

when R<sub>9</sub> = H or methyl, R<sub>8</sub> is also C<sub>2</sub>-C<sub>50</sub>alkyl substituted by one or more of the groups methyl, ethyl, OH[[,]] or NH<sub>2</sub>, and is interrupted by one or more oxygen, -NH-, cyclohexanediyl, norbornanediyl or phenylene, or

$R_8$  and  $R_9$  together are unbranched or branched  $C_3$ - $C_9$ alkylene which may be interrupted by -O- or by  $-N(R_{15})-[[;]]$ .

**8. (currently amended)** A photoinitiator according to claim 1 of formula X



wherein

$n$  is an integer from 1 to 4~~[[, ]]~~preferably an integer from 1 to 3, especially 2, and

$R_6$  is an  $n$ -valent radical of linear or branched  $C_2$ - $C_{16}$ alkyl the carbon chain of which may be interrupted by cyclohexanediyl, phenylene, -CH(OH)-, -C(CH<sub>2</sub>-CH<sub>2</sub>-OH)<sub>2</sub>-, -C(CH<sub>3</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -C(C<sub>2</sub>H<sub>5</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -N(CH<sub>3</sub>)-, -N(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -CO-O-, -O-CO-, -O-CO-NH, NH-CO-O-, -Si(CH<sub>3</sub>)<sub>2</sub>-, -Si(CH<sub>3</sub>)( $R_{17}$ )-O-Si(CH<sub>3</sub>)( $R_{18}$ )-, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-, -O-Si(CH<sub>3</sub>)(O-CH<sub>3</sub>)-O-, 5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and / or by from one to six oxygen atoms, or

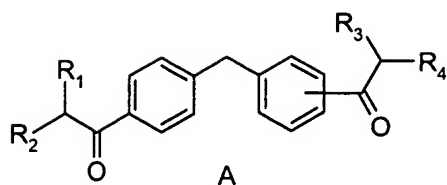
$R_6$  is an  $n$ -valent radical of linear or branched  $-C_2$ - $C_{50}$ alkylene the carbon chain of which is interrupted by one to 15 oxygen, and may be substituted by OH or NH<sub>2</sub>; and

$R_8$  is hydrogen,  $C_1$ - $C_4$ alkyl,;  $C_2$ - $C_4$ alkyl substituted by one or more of the groups OH,  $C_1$ - $C_4$ alkoxy, -CN, -COO( $C_1$ - $C_4$ alkyl);  $C_3$ - $C_5$ alkenyl, cyclohexyl or  $C_7$ - $C_9$ phenylalkyl~~[[;]]~~.

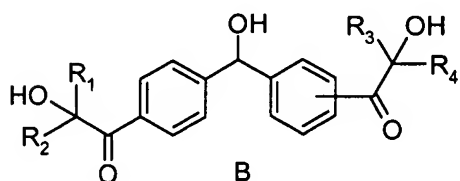
**9. (currently amended)** A process for the preparation of a compound of formula I or II, comprising the following steps:

a) reaction of diphenylmethane with an acid halide of formula  $R_1R_2CH-COHal$  and, optionally, further reaction with an acid halide of formula  $R_3R_4CH-COHal$  in the presence of a Friedel-Crafts catalyst, whereupon an isomeric mixture of formula A is obtained,





b) halogenation of the isomeric mixture of formula A, followed by bromination and hydrolysis, whereupon an isomeric mixture of formula B is obtained,



c) optionally, selective substitution of the benzylic hydroxy group in the resulting isomeric mixture of formula B by reaction

with an alcohol in the presence of an acid as catalyst for the preparation of an ether,

with a carboxylic acid for the preparation of an ester,

with an isocyanate for the preparation of a urethane,

with a diol, dicarboxylic acid or diisocyanate for the preparation of a bridged compound,

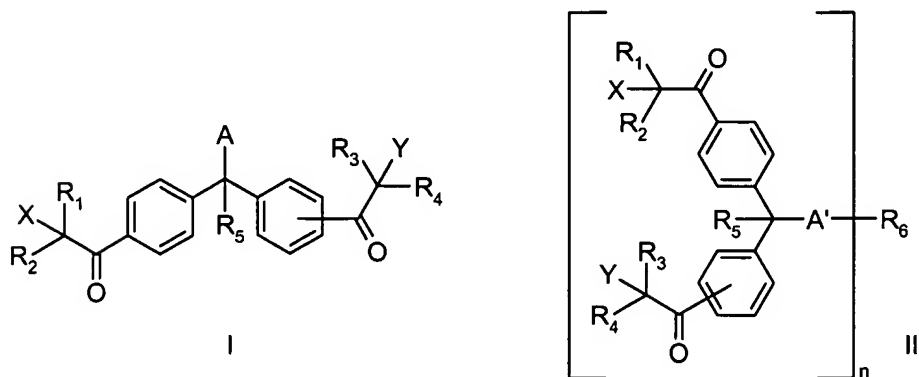
with a diisocyanate together with a diol or a diamine [[.]] or

with a siloxane for the preparation of a silicone derivative,

d) optionally, reaction of the alpha-hydroxy group in the resulting isomeric mixture of formula B [[.]] and

e) optionally, separation of the isomers,

where the compounds of formula I and II are



wherein

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are each independently of the others C<sub>1</sub>-C<sub>8</sub>alkyl; C<sub>1</sub>-C<sub>4</sub>alkyl substituted by OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>8</sub>alkyl), (C<sub>1</sub>-C<sub>4</sub>alkyl)-COO-, benzyl, phenyl or by -N(R<sub>13</sub>)(R<sub>14</sub>);

C<sub>3</sub>-C<sub>6</sub>alkenyl, benzyl, -CH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>-(C<sub>1</sub>-C<sub>4</sub>alkyl) or phenyl; or

R<sub>1</sub> and R<sub>2</sub> together and / or R<sub>3</sub> and R<sub>4</sub> together are unbranched or branched C<sub>2</sub>-C<sub>9</sub>alkylene or C<sub>3</sub>-C<sub>6</sub>-oxa- or -aza-alkylene;

R<sub>5</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>alkenyl, benzyl, -CH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>-(C<sub>1</sub>-C<sub>4</sub>alkyl) or phenyl;

A is Cl, Br, -O-R<sub>7</sub>, -NR<sub>8</sub>R<sub>9</sub> or -S-R<sub>16</sub>;

A' is -O-, -NH- or -NR<sub>8</sub>;

X and Y are each independently of the other -O-R<sub>10</sub> or -N(R<sub>11</sub>)(R<sub>12</sub>);

n is an integer from 1 to 10;

R<sub>6</sub> is an n-valent radical of linear or branched C<sub>2</sub>-C<sub>20</sub>alkyl the carbon chain of which may be

interrupted by cyclohexanediyl, phenylene, -CH(OH)-, -C(C<sub>2</sub>H<sub>5</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-,

-C(CH<sub>3</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -C(CH<sub>2</sub>-CH<sub>2</sub>-OH)<sub>2</sub>-, -N(CH<sub>3</sub>)-, -N(C<sub>2</sub>H<sub>5</sub>)-, -N(CH<sub>2</sub>-CH<sub>2</sub>-OH)-,

-CO-O-, -O-CO-, -O-CO-NH, NH-CO-O-, -P(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -P(O)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-,

-O-P(O-CH<sub>2</sub>-CH<sub>2</sub>-OH)-O-, -O-P(O)(O-CH<sub>2</sub>-CH<sub>2</sub>-OH)-O-,

-O-cyclohexanediyl-C(CH<sub>3</sub>)<sub>2</sub>-cyclohexanediyl-O-,

-O-phenylene-C(CH<sub>3</sub>)<sub>2</sub>-phenylene-O-, -O-phenylene-CH<sub>2</sub>-phenylene-O-,

-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-, -O-Si(CH<sub>3</sub>)(O-CH<sub>3</sub>)-O-, -Si(CH<sub>3</sub>)(R<sub>17</sub>)-O-Si(CH<sub>3</sub>)(R<sub>18</sub>)-,

5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and/or by from one to nine oxygen atoms, or

R<sub>6</sub> is an n-valent radical of linear or branched -CO-NH-(C<sub>2</sub>-C<sub>16</sub>alkylene)-(NH-CO)<sub>n-1</sub>- or linear or

branched -CO-NH-(C<sub>0</sub>-C<sub>9</sub>alkylene)-(NH-CO)<sub>n-1</sub>- which may be interrupted by one or two

phenylene, methylphenylene, phenylene-O-phenylene, cyclohexanediyl, methylcyclohexanediyl,

trimethylcyclohexanediyl, norbornanediyl, [1-3]diazetidone-2,4-dione-1,3-diyl, 3-(6-

isocyanatohexyl)-biuret-1,5-diyl or 5-(6-isocyanatohexyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl

radical(s), or

R<sub>6</sub> is an n-valent radical of linear or branched -CO-(C<sub>0</sub>-C<sub>12</sub>alkylene)-(CO)<sub>n-1</sub>- and the alkylene may

be interrupted by oxygen, phenylene, cyclohexanediyl or by norbornanediyl; , or

R<sub>6</sub> is an n-valent radical of linear or branched -C<sub>2</sub>-C<sub>50</sub>alkylene the carbon chain of which is

interrupted by one to 15 oxygen, and may be substituted by OH or NH<sub>2</sub>;

R<sub>7</sub> is hydrogen, -Si(C<sub>1</sub>-C<sub>6</sub>alkyl)<sub>3</sub>, C<sub>1</sub>-C<sub>12</sub>alkyl, R<sub>21</sub>, C<sub>2</sub>-C<sub>18</sub>acyl, -CO-NH-C<sub>1</sub>-C<sub>12</sub>alkyl,

C<sub>2</sub>-C<sub>20</sub>hydroxyalkyl, C<sub>2</sub>-C<sub>20</sub>methoxyalkyl, 3-(C<sub>1</sub>-C<sub>18</sub>alkoxy)-2-hydroxy-propyl,

3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]-propyl, 2,3-dihydroxy-propyl or linear or branched C<sub>2</sub>-C<sub>21</sub>hydroxyalkyl or (C<sub>1</sub>-C<sub>4</sub>alkoxy)-C<sub>2</sub>-C<sub>21</sub>alkyl the carbon chain of which is interrupted by from one to nine oxygen atoms;

R<sub>8</sub> and R<sub>9</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

when R<sub>9</sub> = H or methyl, R<sub>8</sub> is also C<sub>2</sub>-C<sub>50</sub>alkyl substituted by one or more of the groups methyl, ethyl, OH, NH<sub>2</sub>, and is interrupted by one or more oxygen, -NH-, cyclohexanediyl, norbornanediyl or phenylene, or

R<sub>8</sub> and R<sub>9</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

R<sub>10</sub> is hydrogen, -Si(C<sub>1</sub>-C<sub>6</sub>alkyl)<sub>3</sub>, C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>alkenyl or benzyl,

R<sub>11</sub> and R<sub>12</sub> are each independently of the other C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

R<sub>11</sub> and R<sub>12</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

R<sub>13</sub> and R<sub>14</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

R<sub>13</sub> and R<sub>14</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

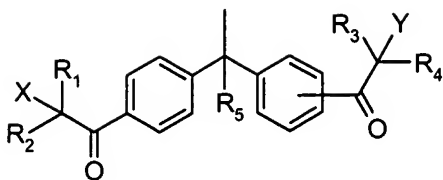
R<sub>15</sub> is hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, allyl, benzyl, C<sub>1</sub>-C<sub>4</sub>hydroxyalkyl, -CH<sub>2</sub>CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>4</sub>alkyl) or -CH<sub>2</sub>CH<sub>2</sub>CN;

R<sub>16</sub> is C<sub>1</sub>-C<sub>18</sub>alkyl, hydroxyethyl, 2,3-dihydroxypropyl, cyclohexyl, benzyl, phenyl, C<sub>1</sub>-C<sub>12</sub>alkylphenyl, -CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>18</sub>alkyl), -CH<sub>2</sub>CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>18</sub>alkyl) or -CH(CH<sub>3</sub>)-COO(C<sub>1</sub>-C<sub>18</sub>alkyl);

R<sub>17</sub> and R<sub>18</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>6</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>6</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and form chains;

R<sub>19</sub> and R<sub>20</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>6</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>6</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and extend chains and, when R<sub>19</sub> and R<sub>20</sub> are linked into a ring, -(R<sub>19</sub>)-(R<sub>20</sub>)- is the bridge -O- ;

R<sub>21</sub> is, independently of formula I, a radical

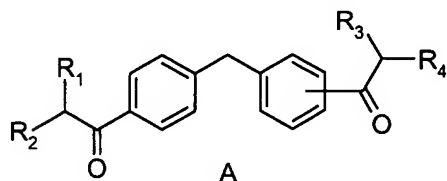


; and

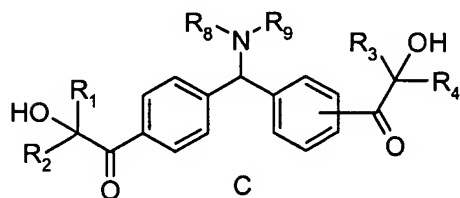
p is an integer from 2 to 12, it being possible for the carbon chain of the alkylene to be interrupted by from one to three oxygen atoms.

**10. (currently amended)** A process for the preparation of compound I or II, comprising the following steps:

- a) reaction of diphenylmethane with an acid halide of formula  $R_1R_2CH-COHal$  and, optionally, further reaction with an acid halide of formula  $R_3R_4CH-COHal$  in the presence of a Friedel-Crafts catalyst, whereupon an isomeric mixture of formula A is obtained,

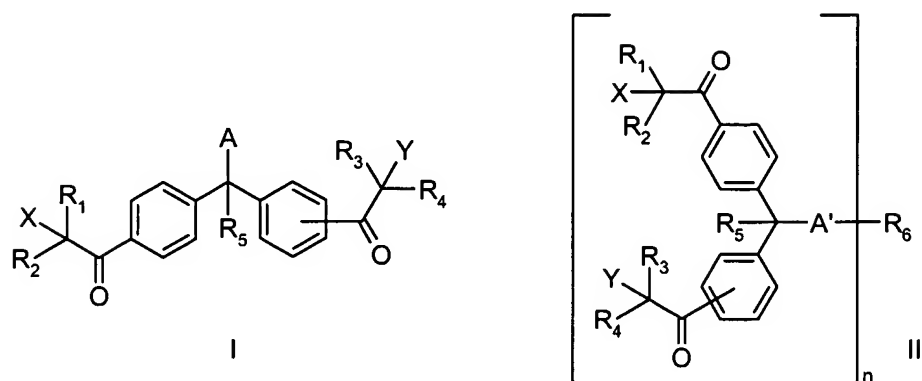


- b) halogenation of the isomeric mixture of formula A, followed by bromination, aminolysis of the benzylic bromide, and hydrolysis of the tertiary halides, whereupon an isomeric mixture of formula C is obtained,



- c) optionally, when  $R_8$  or  $R_9$  in the isomeric mixture of formula C possess a primary hydroxy group, selective substitution of the primary hydroxy group by reaction with a carboxylic acid for the preparation of an ester, with an isocyanate for the preparation of a urethane, with a dicarboxylic acid or diisocyanate for the preparation of a bridged compound $[[.]]$  or with a siloxane for the preparation of a silicone derivative and
- d) optionally, separation of the isomers,

where the compounds of formula I and II are



wherein

$R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are each independently of the others  $C_1$ - $C_8$ alkyl;  $C_1$ - $C_4$ alkyl substituted by OH,  $C_1$ - $C_4$ alkoxy, -CN, -COO( $C_1$ - $C_8$ alkyl), ( $C_1$ - $C_4$ alkyl)-COO-, benzyl, phenyl or by -N( $R_{13}$ )( $R_{14}$ );

$C_3$ - $C_6$ alkenyl, benzyl, -CH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>-( $C_1$ - $C_4$ alkyl) or phenyl; or

$R_1$  and  $R_2$  together and / or  $R_3$  and  $R_4$  together are unbranched or branched  $C_2$ - $C_9$ alkylene or  $C_3$ - $C_6$ -oxa- or -aza-alkylene;

$R_5$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_3$ - $C_6$ alkenyl, benzyl, -CH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>-( $C_1$ - $C_4$ alkyl) or phenyl;

A is Cl, Br, -O- $R_7$ , -NR<sub>8</sub>R<sub>9</sub> or -S- $R_{16}$ ;

A' is -O-, -NH- or -NR<sub>8</sub>;

X and Y are each independently of the other -O- $R_{10}$  or -N( $R_{11}$ )( $R_{12}$ );

n is an integer from 1 to 10;

$R_6$  is an n-valent radical of linear or branched  $C_2$ - $C_{20}$ alkyl the carbon chain of which may be

interrupted by cyclohexanediyl, phenylene, -CH(OH)-, -C(C<sub>2</sub>H<sub>5</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-,

-C(CH<sub>3</sub>)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -C(CH<sub>2</sub>-CH<sub>2</sub>-OH)<sub>2</sub>-, -N(CH<sub>3</sub>)-, -N(C<sub>2</sub>H<sub>5</sub>)-, -N(CH<sub>2</sub>-CH<sub>2</sub>-OH)-,

-CO-O-, -O-CO-, -O-CO-NH, NH-CO-O-, -P(CH<sub>2</sub>-CH<sub>2</sub>-OH)-, -P(O)(CH<sub>2</sub>-CH<sub>2</sub>-OH)-,

-O-P(O-CH<sub>2</sub>-CH<sub>2</sub>-OH)-O-, -O-P(O)(O-CH<sub>2</sub>-CH<sub>2</sub>-OH)-O-,

-O-cyclohexanediyl-C(CH<sub>3</sub>)<sub>2</sub>-cyclohexanediyl-O-,

-O-phenylene-C(CH<sub>3</sub>)<sub>2</sub>-phenylene-O-, -O-phenylene-CH<sub>2</sub>-phenylene-O-,

-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-, -O-Si(CH<sub>3</sub>)(O-CH<sub>3</sub>)-O-, -Si(CH<sub>3</sub>)( $R_{17}$ )-O-Si(CH<sub>3</sub>)( $R_{18}$ )-,

5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and/or by from one to nine oxygen atoms, or

$R_6$  is an n-valent radical of linear or branched -CO-NH-( $C_2$ - $C_{16}$ alkylene)-(NH-CO)<sub>n-1</sub>- or linear or branched -CO-NH-( $C_0$ - $C_9$ alkylene)-(NH-CO)<sub>n-1</sub>- which may be interrupted by one or two

phenylene, methylphenylene, phenylene-O-phenylene, cyclohexanediyl, methylcyclohexanediyl, trimethylcyclohexanediyl, norbornanediyl, [1-3]diazetidene-2,4-dione-1,3-diyl, 3-(6-isocyanatohexyl)-biuret-1,5-diyl or 5-(6-isocyanatohexyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl radical(s), or

R<sub>6</sub> is an n-valent radical of linear or branched -CO-(C<sub>0</sub>-C<sub>12</sub>alkylene)-(CO)<sub>n-1</sub>- and the alkylene may be interrupted by oxygen, phenylene, cyclohexanediyl or by norbornanediyl; , or

R<sub>6</sub> is an n-valent radical of linear or branched -C<sub>2</sub>-C<sub>50</sub>alkylene the carbon chain of which is interrupted by one to 15 oxygen, and may be substituted by OH or NH<sub>2</sub>;

R<sub>7</sub> is hydrogen, -Si(C<sub>1</sub>-C<sub>6</sub>alkyl)<sub>3</sub>, C<sub>1</sub>-C<sub>12</sub>alkyl, R<sub>21</sub>, C<sub>2</sub>-C<sub>18</sub>acyl, -CO-NH-C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>2</sub>-C<sub>20</sub>hydroxyalkyl, C<sub>2</sub>-C<sub>20</sub>methoxyalkyl, 3-(C<sub>1</sub>-C<sub>18</sub>alkoxy)-2-hydroxy-propyl, 3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxany]-propyl, 2,3-dihydroxy-propyl or linear or branched C<sub>2</sub>-C<sub>21</sub>hydroxyalkyl or (C<sub>1</sub>-C<sub>4</sub>alkoxy)-C<sub>2</sub>-C<sub>21</sub>alkyl the carbon chain of which is interrupted by from one to nine oxygen atoms;

R<sub>8</sub> and R<sub>9</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

when R<sub>9</sub> = H or methyl, R<sub>8</sub> is also C<sub>2</sub>-C<sub>50</sub>alkyl substituted by one or more of the groups methyl, ethyl, OH, NH<sub>2</sub>, and is interrupted by one or more oxygen, -NH-, cyclohexanediyl, norbornanediyl or phenylene, or

R<sub>8</sub> and R<sub>9</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

R<sub>10</sub> is hydrogen, -Si(C<sub>1</sub>-C<sub>6</sub>alkyl)<sub>3</sub>, C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>alkenyl or benzyl,

R<sub>11</sub> and R<sub>12</sub> are each independently of the other C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

R<sub>11</sub> and R<sub>12</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

R<sub>13</sub> and R<sub>14</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>12</sub>alkyl; C<sub>2</sub>-C<sub>4</sub>alkyl substituted by one or more of the groups OH, C<sub>1</sub>-C<sub>4</sub>alkoxy, -CN, -COO(C<sub>1</sub>-C<sub>4</sub>alkyl); C<sub>3</sub>-C<sub>5</sub>alkenyl, cyclohexyl or C<sub>7</sub>-C<sub>9</sub>phenylalkyl, or

R<sub>13</sub> and R<sub>14</sub> together are unbranched or branched C<sub>3</sub>-C<sub>9</sub>alkylene which may be interrupted by -O- or by -N(R<sub>15</sub>)-;

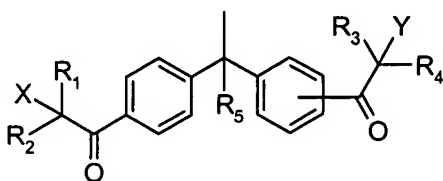
R<sub>15</sub> is hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, allyl, benzyl, C<sub>1</sub>-C<sub>4</sub>hydroxyalkyl, -CH<sub>2</sub>CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>4</sub>alkyl) or -CH<sub>2</sub>CH<sub>2</sub>CN;

R<sub>16</sub> is C<sub>1</sub>-C<sub>18</sub>alkyl, hydroxyethyl, 2,3-dihydroxypropyl, cyclohexyl, benzyl, phenyl, C<sub>1</sub>-C<sub>12</sub>alkylphenyl, -CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>18</sub>alkyl), -CH<sub>2</sub>CH<sub>2</sub>-COO(C<sub>1</sub>-C<sub>18</sub>alkyl) or -CH(CH<sub>3</sub>)-COO(C<sub>1</sub>-C<sub>18</sub>alkyl);

R<sub>17</sub> and R<sub>18</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and form chains;

R<sub>19</sub> and R<sub>20</sub> are each independently of the other a monovalent radical methyl, -O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)<sub>2</sub>-O-Si(CH<sub>3</sub>)<sub>3</sub>, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-O-Si(CH<sub>3</sub>) or a bivalent radical -O-Si(CH<sub>3</sub>)<sub>2</sub>-, -O-Si(CH<sub>3</sub>)[-(CH<sub>2</sub>)<sub>p</sub>-OH]-, -O-Si(CH<sub>3</sub>)(R<sub>19</sub>)-, -O-Si(CH<sub>3</sub>)(R<sub>20</sub>)- and extend chains and, when R<sub>19</sub> and R<sub>20</sub> are linked into a ring, -(R<sub>19</sub>)-(R<sub>20</sub>)- is the bridge -O-;

R<sub>21</sub> is, independently of formula I, a radical



; and

p is an integer from 2 to 12, it being possible for the carbon chain of the alkylene to be interrupted by from one to three oxygen atoms.

**11. (currently amended)** A composition consisting of

(A) at least one ethylenically unsaturated compound,

(B) a photoinitiator of formula I ~~[[.]]~~ or II ~~[[.]]~~ III, IV, V, VI, VII, VIII, IX or X according to claim 1, claims 4-8

(C) optionally, further additives ~~[[.]]~~ and

(D) optionally, further photoinitiators and coinitiators.

**12. (original)** A composition according to claim 11, wherein the compound (A) is a resin containing free OH groups, free isocyanate groups or free carboxy groups and the photoinitiator (B) is bonded to the resin.

**13. (currently amended)** A process for the production of a scratch-resistant durable surface, wherein a composition according to ~~either claim 11 or claim 12~~ is applied to a support; and curing ~~of the formulation~~ is carried out either solely by means of irradiation with electromagnetic radiation having a wavelength of from 200 nm into the IR range, or by irradiation with electromagnetic radiation and prior, simultaneous and/or subsequent application of heat.

**14. (currently amended)** ~~Use of a~~ A composition according to claim 11 which is ~~in the production of pigmented or and non-pigmented surface coating~~ ~~[[s]]~~, overprint coating ~~[[s]]~~, powder coating ~~[[s]]~~, printing ink ~~[[s]]~~, inkjet ink ~~[[s]]~~, gel coat ~~[[s]]~~, composite material ~~[[s]]~~ or a glass fibre coating ~~[[s]]~~.

**15. (currently amended)** ~~Use of a~~ A composition according to claim 12 which is ~~a~~ a surface coating for food packaging materials.